

# The National Association of Corporation Schools

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## Bulletin

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### SUCCESSFUL MEN

George Stephenson, the inventor of the locomotive, was the son of a fireman at a colliery. Mohammed, founder of a great religion, was a shepherd boy. John Bunyan was a traveling painter. Confucius, the Chinese sage, was a small storekeeper. Charles Dickens was a label-sticker in a shoe factory. Michael Faraday was the son of a blacksmith. Benjamin Franklin was a printer. Napoleon was penniless, and in twenty years was crowned Emperor. Conditions have not changed; the road is still open.

### GREATNESS

When they introduced Jacob H. Schiff the other evening to an audience, the Chairman spoke of Mr. Schiff as a "great man." When Mr. Schiff began speaking, this is what he said:

"Greatness often comes from accident or favor, and if this lifts us above the multitude, it should carry with it the realization of greater responsibilities on our part toward others."

Judging from his speech, the Chairman of the meeting knew what he was talking about.—*The Silent Partner*.

### THE "BIGNESS" OF NEW YORK

New York has 2,000,000 more people than rebelled against King George in 1776; 1,000,000 more than Switzerland, 400,000 more than Australia and twice as many as Norway.

The revenue of New York City is twice as large as that of the Canadian government, with nearly enough left to provide for the government of the whole of Australia.

The budget of New York is sufficient to meet the revenue needs of the government of China, with its 400,000,000 people, with enough besides to finance Persia and Turkey and still leaving a surplus of \$7,000,000 a year.

### LOCAL COMMITTEE ON ARRANGEMENTS

Mr. E. C. Wolf, Chairman of the Local Committee on Arrangements for the second annual convention to be held in Philadelphia in June, has perfected the organization of his Committee, which is divided into six sub-divisions as follows:

#### *Educational Exhibits*

E. C. WOLF, *General Chairman*

MR. J. H. HANCOCK, *Chairman*.....The Curtis Pub. Co.  
MR. A. J. ROWLAND.....Drexel Institute.  
MR. J. H. YODER.....Pennsylvania R. R.  
MISS HARRIET R. FOX.....Strawbridge & Clothier.  
MR. E. J. SPEH.....The Bell Telephone Company

#### *Hotel Accommodations*

MR. HARRY WIGO, *Chairman*.....The Curtis Pub. Co.  
MR. JOHN JACKSON.....Strawbridge & Clothier.

#### *Reception and Entertainment*

MR. R. C. BLANCHARD, *Chairman*.....The Curtis Pub. Co.  
MR. WILLIAM C. ASH.....Phila. Trades School.  
MR. JOSEPH H. HAINES.....Haines, Jones & Cadbury.  
MISS HELEN SNOW.....The Curtis Pub. Co.  
MISS ALICE M. BLAINE.....The Curtis Pub. Co.  
MISS KATHARINE HUEY.....The Curtis Pub. Co.

#### *Transportation*

MR. L. A. MILLER, *Chairman*.....The Curtis Pub. Co.  
MR. D. M. BECKER.....Pennsylvania R. R.

#### *Publicity*

MR. W. E. WALTER, *Chairman*.....The Curtis Pub. Co.  
MR. WM. H. MEARNs.....School of Pedagogy.

#### *Convention Daily*

MR. R. C. CLOTHIER, *Chairman*.....The Curtis Pub. Co.  
MR. WILLIAM H. MEARNs.....School of Pedagogy.  
MISS ALICE M. BLAINE.....The Curtis Pub. Co.  
MISS KATHARINE HUEY.....The Curtis Pub. Co.

## THE PRESIDENT'S ADDRESS DELIVERED AT THE BANQUET OF THE ORGANIZING CONVENTION\*

[Mr. Arthur Williams, President of The National Association of Corporation Schools, is identified with various movements for improving conditions of employment and promoting the efficiency of workers.

As General Inspector of The New York Edison Company, he instituted that company's Commercial School, which became the nucleus of The National Association of Corporation Schools.

Mr. Williams is also President of The American Museum of Safety, one of the earliest organizations in this country to agitate for safer working conditions. In appreciation of the value of his work in this direction, he was knighted last year by the King of Spain.

As Chairman of the Public Policy Committee of the National Electric Light Association, he has been influential in drafting that committee's series of reports dealing comprehensively with industrial relations and urging, in particular, the practice of adequate accident compensation and the institution of pensions in the form of "service annuities." These reports have already borne fruit in the adoption, by many electric lighting companies, of such recommendations. Under Mr. Williams's chairmanship, the Public Policy Committee has also interested itself in the promotion of industrial education.]

MR. WILLIAMS: Mr. Toastmaster, guests and fellow members, I esteem it a great honor which you have conferred upon me in electing me President of this Association. I think this is the beginning of a movement that will spread throughout American industrialism, and bring about the elevation of the people who are served by it and those who serve it. I congratulate you upon the character of the men who have formed your organization. I do not know when I have met men who seemed to have so complete a grasp of the problems involved in this movement, who seemed to have so much stable personal equipment for this work, and, above all, who seemed to have so much of an inspiration of service to others which is characteristic, and necessarily must be characteristic of any successful movement of the present time. More than that, it is cheerfully given. I am glad that the Toastmaster spoke as he did of the corporation with which I have had the honor to be connected for a great many years, and which has stood behind every known movement, either in its experimental, or developed stage, not only for rendering service to the public, but for rendering service to its own part of the public, the men and the women who are engaged in its service.

I also gladly make tribute, publicly, to the unselfish, the untiring work of our Toastmaster, and also of Mr. Henderschott, who, indeed, in this and many other directions has been a source of inspiration, and to the others who have been, as I have said before, associated in formulating this movement into a concrete plan.

I think it is only in recent times that we have recognized the value of the so-called commercial education. We are all

\* This address was made to the first annual convention of The National Association of Corporation Schools held at Dayton, Ohio, September 16-19, 1913, and will appear in the proceedings of that convention.

familiar with commercial schools, but they, I think, have been devoted entirely to teaching shorthand, Spencerian penmanship, arithmetic, and things of that sort to young men and women who have lacked the opportunity for a more general or more specific education. The term "commercial school" has been in the past applied to education of that kind rather than to the character of education which we are now seeking to give the advantage of to the men in commercial service.

The Toastmaster has asked me to speak on welfare work, and more especially in reference to the report of the public policy committee of the National Electric Light Association, which was presented several years ago, and I am very happy to do this. You are going to be the educators of the men of the future, you are going to shape men's minds upon these enormously important social-economic-industrial questions, and I think it is important, at least, to show in detail perhaps what has been done by a committee that I consider one of the most remarkable that has ever been collected together for work of this character in any industry, but before I do that I want to make one point in connection with the proposed education—I want to call your attention to what seems to me to be a special advantage which the man who is studying in the commercial school to-day obtains, and which advantage could not be offered to him in any other educational institution. For years we have been trying to solve the problems why one man is absolutely unable to impress his evidence, to accomplish the result he has in mind—I am referring now rather narrowly to the selling results—and another man will not only accomplish the results desired, but go far beyond one's expectation in that matter. What is the quality within a man that enables him to win confidence and bring himself into that kind of communication with his audience that enables him to secure a result? In the past you would say that he was a born salesman, that he was a good talker, but as the needs for men of large ability in that direction grew the supply was limited, and we found ourselves with a limited supply of that kind of brain power, that kind of ability, and we began to look for a way to get men, to train men, to take these places, or, at least, to equal the performance of the so-called born salesman. I believe this particular educational movement, to which I have referred, so far as I am informed, as a successful association, began in Dayton, Ohio, under the inspiration of a man who had shown wonderful ability in many directions, Mr. John H. Patterson—so far as I can learn,



he was the originator of the company school, he was the one who saw the necessity and who recognized the conditions, and who, in my judgment, more than any other man contributed to the solution of the problem.

Now, the advantage that we get in the commercial school, in my judgment is this—the lesson is taught to-day and the student applies the theory of his lesson to-morrow—to-morrow he begins to get the encouragement of something better done, something more effectively accomplished, from the lesson of yesterday, and in my judgment it not only quickens the impulse, the desire for education, but it creates, in passing, a desire to broaden one's education in many directions, with the knowledge that effort expended in that direction is sure of gratifying results. (Applause).

Getting back to the subject—I am afraid, perhaps, I have spoken already as long as I should to this audience—but getting back to the subject of this human relationship which we deem so important to-day, I will tell you as far as I can in a short time the views of our industry: I am referring, of course, to the electrical industry of the country. We have in the National Electric Light Association an organization of almost thirteen thousand membership, and the membership is divided into several classes, the controlling portion being comprised of the electric light and power corporations, as such, and they number about thirteen hundred. There are more than four thousand electric light and power companies in the country, but those who are not in this association, almost without exception, are exceedingly small. Numerically the greater part of the membership is composed of the employees of the member companies. They are given membership in the Association as Class B members, and the object of securing their membership in the Association, is, primarily, that they may get the advantage of an educational effort which in actual cash expenditure represents perhaps \$70,000 to \$75,000 a year, but in the quality of the service rendered—I mean to say the sources from which the information is derived, to a large extent, in the education of these men, there is no amount of money they could pay for these services. There are men who gladly give their aid and assistance in this work, who are occupying the highest executive positions in the company, men who are receiving salaries up to, I might say, at least \$50,000 a year, men of large means, men of great initiative ability, great executive and administrative ability, but they gladly place everything

they have of educational value at the disposition of the men in the industry.

The Association has a Public Policy Committee, consisting of about fifteen members, made up, almost without exception, of the executives of the largest companies. I think I am the only exception to that rule. This committee commenced about five years ago to concern itself with the viewpoint of the public. I would remind you that the electrical industry is a young industry, and that the men who have grown to the responsible positions in the industry have grown up from the ranks, from the engine-room and boiler-room and line work on the highway, and step by step, as their larger ability has been shown, they have climbed; they have understood the machinery employed in the industry, the steam engineering, and electrical engineering, as far as it can be understood, not in the sense that Dr. Steinmetz would understand it, but from the practical standpoint they are men without a peer in running machines, in running plants, but men not trained, necessarily, in running human machines, or in appreciating the finer points that arise in public relations.

This committee started out, recognizing that fact, but the committee drew to the attention of the men who were managing the electric light properties the responsibility resting upon them to serve the public in the largest sense, and to co-operate with public officials, and put their corporations on a very high plane, in regard to quality of service, quantity of service, prices charged, and to do everything lying in our power to train our own people, to train ourselves, with the idea of a larger responsibility to the public, and to instill into our minds the thought, genuinely, not for advertising purposes, that we are in a public service, that we are exercising rights given by the public, and that such service should be considered on our part a privilege.

We passed through several years of that sort of effort with very good results, and then we took up this question of human relationship; we gave it a great deal of attention, and came to the conclusion, as announced by the Chairman that wages (and we so stated in our report, and the report has been very generally accepted in our industry, and we believe it has influenced a great many other branches of industry in this country and in Europe) shall be the highest consistent with the services rendered, and at any rate that they should be sufficiently high to keep the men and those dependent upon them in a healthy state, a state of contentment, and provide for them and their

families and dependents, yet wages at this time in this industry at least, fail to measure the entire obligation of the industry to the worker. We said he was entitled to something more, and briefly the major divisions of compensation—compensation being the term that covered all to which he was entitled, and wages being a part of total compensation—the three additional major elements of compensation were these: First of all, if he is injured in the industry, responsibility for his care and his repair rests not upon him, but upon the industry, and if he is killed, the cost of killing him should fall, not upon the widow and children unprovided for, but also upon the industry. We recognized that modern civilization requires tall buildings, bridges, requires the presence of high tension electric current to provide lights, to operate fast moving trains, trolley cars, and to be employed in numerous other ways, and we recognize that men will become careless, and we recognize that accidents occur which cannot be foreseen, and we recognize that modern industrial conditions prevail with a large life and accident loss, and the conclusion we reached was that when the loss falls upon the worker industry should bear the cost, except there should be no charity in it, no philanthropy, nothing should prevail but the sense of justice, and that opinion has been accepted to-day throughout our entire industry. In olden days a man started to fall from a roof and his wages started to stop before he reached the ground. I do not exaggerate. We have with us to-night the Vice-President and Manager of a corporation in which a man was killed. He touched, by his own carelessness—I want you to get that clearly—a high tension wire, and in the next instant his soul passed into eternity, and he left behind a widow and five children without means of support. Under the law the company had no responsibility, but what did this modern manager do? He and those with him, responsible for the administration of that company's affairs, have provided for that widow a fair income until her youngest child shall become twenty-one years of age, or for a period approximately twelve years. (Applause.)

Five years ago, or even three years ago, I venture to say that if a board of directors had done that you would have thought that they were fit subjects for a commission to examine into their sanity. Let me tell you what a lawyer said about the case. He argued that it would be a great mistake, that it would bankrupt the company. I said—a man was killed, let us assume the case went to court, the jury would have given the widow a

verdict? The lawyer replied, yes, the jury would have given a verdict, but the higher courts of the land would have taken it away from her, and she would not have gotten a cent. His was a lawyer's interpretation of a lawyer made law, but the directors of that company did not accept the lawyer's view, not that the lawyer's position in the matter was not legally correct, but the company did not accept the law's point of view at all, they accepted a modern, humanitarian point of view, and recognized the responsibility for a just dealing force in the community. True, the man who was killed was careless, but I venture to say that every man in this room has had his life saved, at some time, by some other fellow or he found that he has frequently been saved from death or serious injury by suddenly waking up and finding that a chauffeur or driver was on guard and alert and prevented his injury. I call that a part of the new industrialism of our country.

I must pass on quickly. Of course all that I have said about accidents refers to occupational diseases. A man not easily disturbed went to a nearby zinc plant. The manager said to him—"You see those fellows working in the zinc-laden atmosphere? See that man over there, that man will probably live six months." That is the way he looked at it. All he had to do was to properly ventilate his factory, and this condition could be overcome. One of the members of the legislative commission, one of the State Senators, told me personally that between having to work in his own shop at Niagara Falls, and committing a crime and going to prison, that he would rather go to prison than work under the conditions he found in the factory at Niagara Falls. I don't blame the employers, they do not know, and just as soon as these men went there and drew the attention of the employer to the conditions existing, the employer spent \$48,000 to eliminate the harmful forces, which undoubtedly resulted in industrial occupational disease and industrial death. I hold that education is the means by which accidents and occupational diseases will be eliminated from our industries, and the responsibility rests on the industries to bring these conditions about just as rapidly as possible. (Applause.)

The second principle in the recommendation of the committee referred to related to so-called pensions. Now, a pension suggests charity and philanthropy; and we all understand, and make the distinction, that the American workman does not want any charity from his employer, he simply wants a fair measure of

justice. We could put this condition in a pension clause—let us assume that the State cared for the dependent widow and children, and instead of sending the children to a home and the mother to the poor-house, let us assume, for the moment, that the State provided the means necessary for the mother to maintain her home and bring up her children under the proper home influences. Do not understand me as talking in favor of that question, though I may tell you, in passing, that a recent investigation showed that about 97 per cent of the criminals in a given territory were institution made young men and young women. If the State provides the funds for the mother to keep her home and bring up her children I call that a pension, but I do not call a pension any gratuity paid by an employer, corporation or firm to an aged employee who has rendered long and faithful service. Our committee did not like the term "pension" and we adopted a new one. We called it in our work a Service Annuity, as representing something that the recipient has earned for services rendered and to which he is entitled, and to deprive him of which will be to deprive him of something to which he is justly entitled as the result of the services he has rendered the employer. (Applause.)

We came to the conclusion, first of all, that long and faithful service is of value to an employer. Seriously you cannot pay for that service either in the weekly or monthly wage. It is impossible, because how do you know you are going to get it? That means if the undertaking is successful, and almost all undertakings are successful in the long run, that every week, every month, the worker has left something behind that he has not taken out for long and faithful service of value to the employer, and we all agree that long and faithful service is of great value, and being of value the employer should pay the employee. That is only another element of the compensation to which he is entitled. It must be thoroughly done and must be based upon long service and faithful service in order to justify the payment of the service annuity. It is exactly analogous to the purchase of a service annuity from a life insurance company. We held that was not charity, that it was not philanthropy, that it is not a pension, that it was a service annuity, and that is the term that has been adopted for that in our industry.

The third major proposition was this—the employee should share in the profits of the concern with which he is connected. That is the most startling of all. These other things cost sur-



prisingly little. For The New York Edison Company I may say that the care of its employees along the lines of which I have spoken in regard to accidents does not amount to more than 1 per cent of the payroll; the cost is less than similar protection could be purchased for from an insurance company. The cost of the service annuity of the Pennsylvania Railroad Company last year, and that is at the end of ten years' experience, was .7 of 1 per cent of the payroll. We see that in these modern movements this effort to deal justice to the worker, that committing the employer to an expenditure of 1 per cent on the payroll, or .7 of 1 per cent on the payroll, is not going to do that.

Now, as to profit sharing, the third principal element, in addition to wages, making four in all, this phase of compensation, to which the worker is entitled, costs more than any of the others. Our proposition was this—that a successful business is the result of three things: Labor, capital, and brains. Of the three, it is very hard to say, which one comes first. Take the English railways: two years ago, they had capital and they had all the brains they ever had to direct them, but they had no labor, and those great systems became inert and dead, and instead of being a source of revenue, they became an obligation. If you take the co-operative store movement of England, what do you find: No capital, very limited brains, enormous quantities of labor, results indifferently small all along the line. So that you must have all three, capital, brains and labor, to successfully carry on any enterprise, and we came to the conclusion that where labor, the third member of the combination, produces a successful result, labor should share in the profits, and again that was accepted by our committee and endorsed by our Association, and little by little the proposition was taken up by the companies in this country, and next in England, and in England we have had a better example set for us, there are now in England twenty-five corporations sharing profits with their employees, and here I think we have about twenty that are sharing profits, but we believe that the day will soon come when the principle of profit-sharing will spread throughout our entire industry. I will give two illustrations: The Brooklyn Edison Company, has instituted the plan of profit-sharing, and our recommendation was that the men should receive the same dividend on their capital, though it was a special fund for the men who put this money in—that he should receive on his investment, on his capital, the same percentage of return that was given to the other stockhold-



ers, and the Brooklyn Edison Company adopted the rule, the full dividend not being reached until the man had been three, or four or five years with the company. These men get the same dividend on their capital every year, and they have done so for several years, and to-day the employees of the company represent the fourth largest stockholder in the company, partly by profit-sharing and partly by reason of their own savings. The objection is raised by some companies that they are too small to put this plan of profit-sharing into effect. I have a friend who has a small lumber business. He had been watching the men carefully. About six months ago he converted his firm into a corporation, took all his employees and gave them part ownership in the stock, and he says that the results have been extraordinary—there are not over twenty or thirty men employed in the business—but the results have been extraordinary, as shown by their devotion to the interests of the corporation, in caring for the customers, in protecting the property, in making quick deliveries, and their efforts to make sales, and the result is that, dividing his profits, dividing his ownership, recognizing the services of his men during the past ten, fifteen or twenty years, his business to-day is far more profitable than it has ever been in the past. That is the experience of every corporation with which I have come in contact that shared profits along lines which bring the employees into the ownership class. Yet note, as the committee distinctly pointed out, if you give money in place of ownership, the money is looked upon as wages and quickly spent, and the lasting interest in the undertaking, which you are hoping to bring about is lost, but where profit is given in the shape of ownership, through profit-sharing, the interest and the effort is held, and the results, as far as I know, have been uniformly satisfactory. Now, note, gentlemen, that these are briefly the four principal elements of compensation which our committee and our industry believe the industrial workers connected with our industry are entitled to, and as I say, our report was unanimously adopted at the convention of the association held about two years ago.

I am personally of the opinion that that kind of treatment offers the solution, and the only solution, of the differences between capital and labor. I believe these differences will exist as long as injustice prevails, and that as soon as injustice is eliminated, the contentions will cease, and there will be that recognition, as there should be, of an absolute unity of interests between capital on the one hand, and labor on the other, or, to

use better terms the employers and those who are working in their service. (Applause.)

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### **OPPORTUNITY LIES IN EVERY MAN'S PATH**

There were six of them living in a two-room, company-cabin at Bentyre, Scotland. The father was a coal miner, industrious, honest.

A strike was declared and in company with his comrades, the coal miner "went out."

As a war measure, the coal company put this Scotch family out in the winter cold. Their few household necessities were piled in a snow-drift. A neighbor permitted them to move into a stable under a toll-house.

Then the father decided to go to America. Four months later, the mother and the rest of the family arrived at Castle Garden, without friends and without money. At the Garden a letter was handed the mother, and in it was enclosed a sum sufficient to transport the family to Arnot, Pennsylvania. Then there was a reunion on American soil—then there was another Scotch-American family here.

One of the boys was named William.

At twelve, William began to educate himself by reading, and from this time on, William did anything to earn a bare living. He fired an engine, worked in a sawmill, chopped down trees in the bark woods. But this was years ago.

William B. Wilson, the son of the sturdy old Scotch coal miner, is our Secretary of Labor, and this is what he says:

"I spring from humble circumstances. If I have managed to get on in the world to any extent, it affords the best possible evidence that this is a country in which opportunity lies in every man's path."—*The Silent Partner*.

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### **VOCATIONAL TRAINING IN RURAL SCHOOLS**

Dr. John H. Finley, president of the University of the State of New York, defined to the District School Superintendents of New York State, in convention at New York University, the attitude of the State Department of Education toward instruction in the rural schools of the State. He indicated that his department would advocate vocational training in the rural schools to fit country children for life in the country.

Lectures on Health, given by noted doctors, is a new feature in the public schools of New York.

## NATIONAL CASH REGISTER SCHOOLS FOR SALESMEN

By R. H. GRANT

[Mr. R. H. Grant, Sales Manager of the National Cash Register Company, has been connected with that company for the past ten years. During that time he has held various positions in the Sales Department and in the field. His work with the National Cash Register Company has been entirely along selling lines. Mr. Grant was born in Ipswich, Mass., and is a graduate of Harvard College.]

*Ladies and Gentlemen:* As you know, the president of the National Cash Register Company has throughout his career been a strong advocate of the value of teaching employees. From the beginning of the National Cash Register business Mr. Patterson has increased the efficiency of the people working for him by means of industrial education carried on in his own plant.

I want to weave through my talk as I explain these schools the theme of practicability. I want to make clear to you, if I can, the success of the school which embodies practical teaching. Successful business teaching does not depend upon the learned organization; it does not depend upon the wonderful themes brought forth by very learned men. It depends on the practical teaching that a practical man gives to a group of well-selected practical men in front of him.

### SELLING AND ADVERTISING

In handling the subject of selling we want to weave into it the subject of advertising, because the two are so closely allied that you cannot separate them either in your teaching, in your working, or in any other way. In teaching, as in everything else, you do not accomplish much if you do not finish what you start.

How is a selling force taught? First, by schools; that is, the regular salesmen's training school. Second, by conventions. We teach by conventions. I want to outline the difference. When you teach in a school you have together a body of more or less new men and lay down to them the fundamental principles of the particular business for which the school is held. When you come to your conventions, weekly, monthly or yearly, it is a getting together of the experienced men. In such con-

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ventions a lot of post-graduate work has to be conducted, which follows up the elementary work that was taught in the regular school by the company. Third, by advertising. Fourth, by supervision in the field. Fifth, by self-teaching.

As long as you do the teaching yourself, you have accomplished nothing. If you have a set of men in your selling force that require continual teaching, your school is not a success. The college graduate who, after completing his college course, quits studying cannot be considered a student; he cannot be considered a learned man, because ten years after having completed his college course what has he left? Why, hardly a grammar-school education. Unless he learned in that school how to study, and that he must study, the school was not successful. In business, unless our teaching makes the men take up self-teaching, we are not successful in our work.

#### **ELEMENTARY SCHOOL**

Now, what we have to do is to start with an elementary school. I am going to show you how we select the teacher and what we do in that school.

We next hold conventions in order to do post-graduate work after the first schooling.

We then must teach through our advertising and literature.

We must then teach by the supervision of the sales management of the company and their representatives in the field.

We must get the people who are taught into a condition of mind where they will continue to teach themselves. We must teach them that in order to teach themselves they must continually:

(1) Observe; (2) Listen; (3) Read; (4) Discuss; (5) Think.

Now, gentlemen, that looks very simple on paper; that looks very, very simple on this board; it seems simple to hear me say it; but the failure or success of the school work in corporations depends on whether the management of those concerns has the teaching ability to make men become their own teachers, and that cannot be done alone by a little side-issue school which is called a salesmen's school. That is merely the start. There must be a complete and comprehensive scheme.

In order to do these things The National Cash Register Company has instituted an agent's training school for instruc-

tion in the selling end of the business. Prospective National Cash Register salesmen takes a course in this school after having completed a preliminary training in the field.

I was very much interested in the ideas put forth by a certain gentleman here, that field training indicated more about a man's selling qualities than all the class work that could possibly be done. In our experience we have taken men who look to us as if they would make good salesmen. These men have been selected largely by our district managers. These district managers undoubtedly use character analysis without being aware of the fact that they are doing so. They have an intuition which enables them to be fairly successful in picking out good men. Their ability as district managers depends to a large extent on this intuitive ability to select men who will make good in this business. It is not done scientifically—it is done as the result of experience; it is done as a result of years of training; it is done because they have the faculty to pick a man that is right in a large percentage of cases.

Men having been picked in this way are put into the field, and in three months, six months or a year, the district manager decides they are fitted for our business, and the man is then admitted to our school. A gentleman who spoke on this subject mentioned training-ground men who would watch these beginners. We do not require them. We have the agent for whom this new man has to work, and he is an old experienced man. We have the district manager supervising the agent, and he is a man of ability or he would not be in this position. Consequently, this new man gets plenty of supervision; plenty of practical judgment is passed upon him before he is turned over to us to train. He then comes into the school.

We have three sessions during the year. Each class is limited to about 50 men. We want to make this school as economical as we can. We want the instructor to teach just as many men as he can at one time without losing personal touch with the individual members of the class, and we find that 50 is about the right number. When the class exceeds 50 the instructor is apt to lose all personal touch with the members, and the teaching is not as efficient as when there is a personal interest between the instructor and each man in the class.

The course covers five weeks. The students' expenses, except transportation, are borne by the company.

The school is in charge of one instructor, who is an expe-



rienced National Cash Register salesman. There is a regular outlined course of study. Written examinations are given to make the men work. They all have ambition and they want to show up well in their examinations. That is a stimulus. Diplomas are awarded to show that they have completed their course.

The instructor must be respected by the salesman. He must have been a most successful salesman. He should have combined with this reputation an ability to teach. Consequently it is a difficult matter many times to pick a good teacher. You can always get a good salesman out of a crowd of men, but to get a good salesman who is also a good teacher is the problem that confronts the sales manager. But I want to make the point strong, that if you are going to have a successful teacher for a school of this kind he must have a reputation with the salesmen, and the men he is going to teach, that will insure the existence of a proper spirit between teacher and students. In addition to that reputation he must have the teaching ability, which some men do not have. If you get such a combination, you have an efficient teacher.

A regular outlined course of study must be used, because we want the experience of our thirty years in this business, and you want the experience of your business embodied in your course. You will want an outline in accordance with the policy as laid down by the sales management and by the company.

After a man gets through with this schooling, he returns to the place he came from, and, as a rule, to the same position. You understand, gentlemen, we are not trying to make a salesman in this case; we are merely taking a man whom our District Manager has passed upon and has said is a fit subject to educate—a good cash register man. What we have been attempting to do is merely to expand that man's knowledge, to open his eyes to the opportunities of the business; to get his enthusiasm up to where it belongs; to have him come and meet the heads of the company, and to see the kind of plant we have. In other words, to give him an equipment which will broaden him so that he can go back into the field and, by successful work, absolutely demand from the District Manager a territory.

We do not try to make salesmen of men who should be engineers nor of men who should be learned professors. We are taking men whom the District Managers believe are the right kind of material, and developing their abilities to the greatest possible degree. The District Manager Con-



ventions are composed of the men who supervise these salesmen, because, unless you constantly teach the men who are going to supervise these new men when they go out into the field, you are not getting the highest efficiency. Once a year these men meet and discuss with the sales management the selling policy, and the method of increasing the efficiency of sales agents and salesmen. The subject that is constantly up in the conventions is, where to get men and how to make them better.

If you are going to have a good selling organization, you must get good men, and you must train them and everybody connected with the selling end of the business.

#### **DISTRICT SCHOOLS**

Every two weeks the district managers call a meeting of the men and teach them. This meeting lasts a couple of hours and is very practical. The men bring up different problems that have confronted them. The district managers outline the policies of the company, its methods of enlarging and carrying on the work; and one of the most important subjects discussed is how to teach the men to become self-reliant.

We have a Hundred Point Club meeting once a year, attended by men who secure beyond a certain amount of business. At the meeting the most successful men in our selling force teach each other, and the interchange of ideas is helpful.

Such meetings stimulate ambition. Every man in our selling force wants to be in that club, every man in our selling force cherishes, next to his family, a desire to come here and be recognized as one of the leading salesmen of the company. These meetings properly come under the heading of schools, because its big value is that of the exchange of ideas and the talking over of business problems. It makes the men more self-reliant and gets them on a basis where they want to help themselves. They are pretty well up in the scale when they become Hundred Pointers.

We carry on post-graduate schools. There are times when we take into the factory under a competent instructor sixty or seventy men picked from our selling force—men who have been through the elementary school—because we believe that they will benefit by seeing what we have, the new things that are proposed, and the opportunities that exist.

#### **OWL CLASSES**

The Owl Classes, which are held several evenings a week in the winter months, give the people in our offices the rudimen-

tary ideas of selling, with a view of making them better men, because we broaden the scope of their vision, and also prepare them for outside positions later on.

These make up the different teaching features of our selling department. I trust in this explanation I have made clear the idea that education must begin in an elementary way and go on through post-graduate courses until you have a lot of men who will take care of their own education, and until you do that, gentlemen, you cannot have an ideal selling force that can be called successful.

In our training school we take up the following subjects:

- Preparation.
- Advertising.
- Weakness of Systems in Use.
- The Approach.
- The Reapproach.
- Installations.
- Collections.

In taking up these subjects in the school the instructor uses plain business language. We can only use to advantage scientific and psychological data after it has been reduced to simple English.

We believe in small words and in big ideas. The president of our company has always taught us that way. We believe in all the psychological research possible, and the tabulation of scientific data. We believe in practical salesmanship; in having men understand what they are talking about and in expressing their knowledge in plain language.

Before I close, I want to show you the difference between two policies. From 1903 to 1908 our policy was to take new men who had made a success in their previous business, put them in school, teach them and put them in the field. As a result we had 26.4 per cent that made good in that five-year period. In 1908 we had 168 men out of 635 that we had hired on that basis. Then we adopted a new policy, and got 78 per cent of successful men; in other words, out of 684 men, 539 are still in the business. What changed the proposition? Simply a practical thing. We put the men into the field before we put them into the school. Some men do not like our business and quit before they get to the school. Some we do not desire and we let them go before they get to our school. Just the introduction of a prac-

tical idea; the adoption of a test that was practical did us a great deal of good.

Now I want to say a word, if I may, on the subject of advertising and selling as a combined subject. In our schools you notice the second subject is advertising. It is an important subject to a salesman, and the trouble is that most salesmen and managers do not know it, and many times sales managers and advertising managers are not co-operating as they should. Advertising matter is not being used by salesmen as it should. Much money is being spent, and there is a waste unless you get close connections between the two departments.

You know that securing an order has been analyzed in this way: First, get the attention of the customer; second, arouse interest, then inspire, then obtain confidence, then create desire and finally get the order. Most salesmen, unless you teach them, are not aware of the fact that the advertising department is doing the same thing. If they do not know it, why should they get enthusiastic about it? But when taught by our instructor that the advertising department is doing identically what they are doing, they immediately want to use the advertising matter. Good copy, like a good salesman, gets the customer's attention, interest, confidence and desire to buy, and finally the order. The two together get these results more effectively than either alone. We want to teach advertising to our men as quickly as we can.

Never in the history of the company, until we began to teach it, did we get that co-operation between the sales department and the advertising department. We believe to-day it is almost perfect.

In closing, I want to point out to you what Mr. Patterson, early in the history of this business, analyzed as the requisites of success: Health, honesty, ability, industry, and knowledge of the business. He pondered over it a long while, and decided it was right, and almost at the start of this business he decided that to get more knowledge to the selling force and instill into them ideas of industry, health, etc., he must call the men together and have schools. This work was done by him personally for a time, and then he employed an instructor. That is what brought our schools into existence. The schools have continued from that time, and we believe in them to-day more than we did in the beginning, but we only believe in them when they are carried out to a completion, and when they have as an ideal the self-

education of a man until he is a finished product, able to go on and take care of himself.

### INDUSTRIAL EDUCATION ABROAD

Extract from a report on Industrial Education, published by H. E. Miles, Chairman of the Committee on Industrial Education of the National Association of Manufacturers.

Now that Sweden is adopting the Continental method, all the industrial nations of Europe, with their long-time experience, are a unit in their dependence upon the continuation schools for the education of the masses after the fourteenth year, and in combining the lessons of the day's work, the practice and experience of the store, the factory and the counting room with a half day or more of schooling where the work of the week is interpreted to each child and the science and art of the vocation is developed; these schools always to be conducted by teachers from the several vocations and invariably under the general control and direction of representatives of the vocations, employers and employees.

Wisconsin has demonstrated that this is as necessary and as helpful in America as elsewhere. Indiana has passed a law similar to Wisconsin's, but infinitely weaker in that there is no compulsion of attendance; the State board consists of college presidents and school teachers with but three laymen admitted to membership in the board of eleven as a compromise after a desperate effort on the part of the school teachers to keep all laymen off. Pennsylvania has passed a law giving State aid up to one-half of the total running expense of each vocational school not exceeding \$5,000 of such aid to one school. Here is a school teacher control with the inevitable tendency to make the work academic. Where schools are established, the local boards may compel the attendance of children in employment from fourteen to fifteen years of age.

New Jersey has provided for a system similar to Pennsylvania's. In Massachusetts, the Lower House has passed a bill which is sure to become a law.\* It offers State aid like the foregoing and authorizes the local authorities, where a school has been established, to compel the attendance of all children in employment from fourteen to sixteen years of age. Other States will legislate in rapid succession. Most of the bills will be unhappy compromises. As has been said by Mr. Prosser, secretary of the National Society, in substance: "It looks as if we must cut and

\* Enacted since above was written.

fit, and make all sorts of mistakes for fifteen years before we get right." Each day there is less reason for compromise. There will be none and the schools will be made practical as well as cultural if, and only if, the working people and their employers insist upon right procedure.

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### **WISCONSIN REACHING THE MASSES**

Extract taken from a report on Industrial Education, published by H. E. Miles, Chairman of the Committee on Industrial Education of the National Association of Manufacturers.

Wisconsin two years hence will have from 20,000 to 40,000 who are or have been in her industrial continuation schools, many of them splendid in promise, ability and enthusiasm. Indeed, today enough could be picked out to make several trade schools larger than any now in America, and everyone an extra good man.

The trade school of the future will be far less on the order of a close corporation, far less for the favored few only, favored financially, not intellectually.

It will give the utmost of opportunity to the bright fellow who can come nights only, or only a few hours of daytime per week, also to the half-time "co-operative" students, who by special arrangement between school and factory take "a week about" between school and factory, as in the Cincinnati College of Engineering, where, under natural selection, factory workers are being lifted from the lower levels to the top places in American engineering, earning their way splendidly as they go. And, lastly, those who can spend all the time in study will be cared for somewhat as at present, but with greater care for the individual as such and less of pressure into classes and squads as such.

We may well be grateful to the directors of trade schools for doing what the country has permitted them to do these long years. None will rejoice more than they in the coming new industrial continuation schools and the new trade schools, and none are doing more to hasten the day of general trade education of the masses with their millions of pupils underlying the trade schools of the future.

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### **POVERTY IN ENGLAND**

In England there are cities with about 25,000,000 persons—men, women and children, of which 30 per cent, are in normal poverty—dependent on less than \$6 a week. No country can be prosperous while such conditions are permitted.



### A SCHOOL FOR PRINTERS

An opportunity for printers' devils to receive additional training is now afforded them by the establishment of the Employing Printers' Section of the School for Printers' Apprentices. "Big Six" officials and those interested in the work of the Hudson Guild and many of the leading printers are behind the movement, which marks an epoch in the printing trade.

The printers' apprentice school is in its second year and is one of the best examples of vocational schools in America. It is managed by a board of twelve directors, four of whom represent the Hudson Guild, whose special interest is to make good citizens of young men, four from Typographical Union No. 6, and four from the new society representing the employers. In addition to giving free accommodations, the Hudson Guild appropriates \$1,000 per year to the school and Typographical Union No. 6, \$2,000. The expenses for the current year for tuition and incidentals are estimated to be \$5,000, and it is expected that the master printers will contribute at least \$2,000 of that amount.

Students must have been at least two years in a printing plant before they can be admitted to the school, the object being to educate only those who have finally decided to make printing their vocation. There are more than two hundred students in the school who are working in about one hundred printing plants in Greater New York. During the year the composing room plant of the school has been improved and enlarged, and is now valued at between \$6,000 and \$7,000. It is equal in point of efficiency to the best working plant in the city. There are four instructors. A large proportion of the lads are permitted to attend the school in the afternoons and are paid for these hours by their employers. It is a condition that lads who attend in the afternoons shall attend an equal number of hours in the evenings. Most of the lads receive eight hours' instruction each week; some only four and some more than eight. The teaching has proven to be very effective. There are lectures on the history, art and practice of printing by volunteer lecturers who have attained eminence in the printer's occupation. In an article about this school the *New York Times* says:

"The practical success of this school is in striking contrast with the lack of good results obtained from the printing classes in the vocational schools conducted by the Board of Education.

"The city schools have demonstrated the futility of attempt-



ing to teach an intricate business such as printing to lads taken from school, who have had no experience in printing plants and are, therefore, undecided in the choice of an occupation, and are attracted to the classes by mere curiosity or unreasoned impulse. The boys who have worked at the printing trade for two years and who are then willing to attend evening classes in their own time may be safely assumed to have finally chosen their occupation and may be instructed without loss of effort. The school is located at 436 West Twenty-seventh street, between Ninth and Tenth avenues, and all who are interested in vocational education, which is one of the imperative needs of the commercial life of the city, will be welcomed, more especially if they are interested in the printing and publishing industries."

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#### **A SCHOOL FOR TRAINING PUBLIC SERVANTS**

The Training School for Public Service, founded by Mrs. E. H. Harriman, Andrew Carnegie and others, announces in its second annual report that its employees have effected a saving of \$600,000 in the Water Department budget of New York City.

The school, which is conducted by the Bureau of Municipal Research of New York, has received applications from 138 cities in thirty-five States and two foreign countries. Up to December 31, 1913, ninety-two persons had been accepted for training.

Of the men who have left the Training School to enter Public Service, one is in charge of a country-wide study of schools and libraries in Newark, N. J.; another is secretary of the Robert L. Stevens Fund for Municipal Research in Hoboken; another recently directed a State-wide school survey for Ohio, and is now organizing a bureau of municipal research in Toronto; another is director of the Bureau of Municipal Research in Springfield, Mass.; one is Auditor of Montclair, N. J.; another secretary to Commissioner Goldwater; another Fourth Deputy Police Commissioner.

There are three in Milwaukee—one in the Mayor's office and two working for a citizens' committee in revising the city's accounts.

Salaries ranging from \$500 to \$4,000 have been paid to men who otherwise would have been unable to enter the public service field.

Men, to be admitted to the Training School, must have had

a college education, or experience equivalent thereto, and in addition, they must have "a pleasing personality, forceful character and a genuine interest in public affairs."

Applicants are tested by the following score card:

<i>Personal Appearance.</i>	<i>Character.</i>	<i>Answering Questions.</i>
Dress—Neat.	Tactful.	Ready.
Careless.	Enthusiastic.	Hesitating.
Conservative.	Confident.	Thoughtful.
Dignified.	Balanced.	Careless.
Physical—Neat.	Sense of humor.	Clear.
Well set-up.	Modest.	Concise.
Healthy.	Adaptable.	Verbose.
Pleasing.	Cordial.	
Poised.	Courteous.	
Dignified.	Open-minded.	
At ease.	Straightforward.	

On each of the above items the applicant gets one of four marks—N, "not at all"; S, "slight"; M, "medium"; second N, "notable."

### COMPETITION VS. COOPERATION

In a recent address Dr. Charles P. Steinmetz, one of the greatest authorities on scientific and educational subjects of the present period, said:

"Competition is dead as an industrial economic force and co-operation has taken its place.

"On the day when engineering increased the means of production of a commodity beyond the amount that could be consumed under existing conditions competition ceased to be a progressive driving force and became a destructive force. The masses of people imagine that industrial consolidation is killing competition, while in reality the death of competition as a beneficent industrial force is the cause of consolidation."

### A SCHOOL FOR MERCHANTS

The University of Minnesota has begun a course for retail merchants. This course springs from a belief that in the study which has been given to various phases of our economic and commercial life distribution has not received its just share of attention.

### **"THE MONEY VALUE OF EDUCATION"**

Mr. J. M. Dodge, of Philadelphia, in a noteworthy paper entitled "The Money Value of Technical Training," has computed the capital value of four classes of employees, each according to the amount of preliminary instruction which they have received. The first group he calls the unskilled labor group, the second the shop trained or apprentice group, the third the group trained in trade schools, and the fourth the group educated in the higher technical schools. The unskilled laborer, with but primitive training, works under the immediate supervision of a boss and earns at the age of twenty-two \$10.20 per week. This amount represents \$530.40 a year, or, capitalized at 5 per cent., \$10,608. This sum, then, \$10,608, is the capital value of the unskilled laborer; in other words, it represents the amount which he is worth to himself, and also to the community.

The apprentice starts in at \$3 per week, and is worth about \$3,000 at the outset. At the age of twenty, he is earning \$9 per week, and his worth amounts to \$9,000. From the age of twenty to twenty-one and a half his pay is increased to \$13.20 and his potential value to \$13,200. At the age of twenty-four he earns \$15.80 per week and his value is \$15,800. In other words, in eight years the capital value of the shop trained apprentice has increased \$12,800.

The third group is composed of those young men who enter a trade school at sixteen years of age and devote the next three years to acquiring a trade under competent instruction. At the age of nineteen, a trade school man enters the machine shop, and he can command \$12 per week, equal to the apprentice at twenty-one years of age. The three years at school have increased his value from \$3,000 to \$12,000, a gain of \$9,000; thus he has caught up to the apprentice entering the shop at sixteen and who has been working for five years. Continuing the comparison, at the age of twenty-four the trade school graduate is earning \$20 per week, with a potential value of \$20,000, or \$4,200 greater than that of the shop trained man. He increases his earnings up to \$22 per week, a potential value of \$22,000, and he does not, as a rule, go much farther. The members of the third group are worth, therefore, on the average, \$6,200 more to themselves than the members of the apprentice group, solely as a result of their more thorough preliminary training.

The fourth group is represented by a boy of sixteen who

studies in a high school until his eighteenth year, preparing for admission to some technical institution, such as the Massachusetts Institute of Technology, Stevens Institute, or Cornell. Here, after four years of training, he is graduated at the age of twenty-two, ready to begin practical work. His wages at starting are \$13 per week, or the same amount earned by the apprentice at the age of twenty-one and a half and by the trade school group at nineteen and a half. He has apparently lost by his six years of preparatory study, being six months behind the apprentice, and two and a half years behind the trade school graduate. The graduate of the technical school, however, increases his earnings very rapidly. Within six months his wages rise to \$14 per week, and he reaches \$15.80 per week nearly one year before the regular apprentice. In three years' time, the technical graduate earns \$22 per week, surpassing the members of the trade school group, and his earnings continue to increase until at the age of thirty-two, ten years after entering upon his practical work, the technical school graduate earns \$43 per week and his potential value is \$43,000. Six years of preparation have enabled him to far outstrip the shop group and the trade school group.

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#### HOWARD ELLIOTT'S OPINION

In assuming the presidency of the New York, New Haven & Hartford Railroad, Howard Elliott said:

"I am anxious to impress on all men in the system that they need not worry as to the future. No man who is doing his work well need fear. My hopes for the future are built on the men, you see.

"In railroads we are reaching our limits on plants. We have increased the weight of rails, the strength of bridges and the weight of cars and the powers of locomotives until we cannot go much further. Better use of all the appliances and better utilization of the employees marks the real step for the future.

"I have been trying it for twenty-five years, but not just the way it is understood. Scientific management which ignores the personal equation always will be a failure, and that is what must be avoided. I want to work with my men rather than at them. That is the thought I have in mind."

### **EXECUTIVE COMMITTEE MEETS**

On Thursday, April 2d, the Executive Committee held a meeting in New York City. The following members were present:

E. St. Elmo Lewis, First Vice-President.  
Dr. Lee Galloway, Secretary.  
E. J. Mehren, Treasurer.  
L. L. Park.  
J. W. L. Hale.  
A. F. Bardwell.  
William D. Kelley.  
C. R. Dooley.  
E. C. Wolf.  
George N. VanDerhoef, Proxy of Mr. M. W. Mix.  
F. C. Henderschott, Assistant Secretary-Treasurer.

The Treasurer's report showed \$4,064.29 in cash on hand.

Mr. Lewis, Chairman of the General Educational Committee, made a verbal report for his Committee, and, after discussion, it was moved that the program for the second annual convention to be held at Philadelphia, June 9th, 10th, 11th and 12th, be prepared by the General Educational Committee, following the lines of the recommendations of the Executive Committee, but that the General Educational Committee be given full power. The motion was unanimously adopted.

The Assistant Secretary advised the Executive Committee that Mr. T. E. Crossman had submitted a proposition to report the proceedings of the second annual convention compensation to be at the rate of twenty-five cents per folio. Upon motion the Assistant Secretary was authorized to close a contract with Mr. Crossman.

Dr. Galloway, Chairman of the Committee on Allied Institutions, reported that his Committee had been organized, but had not commenced active work, as they were waiting for publication of the proceedings of the first annual convention. As such proceedings have now been published and forwarded to members, Dr. Galloway stated his Committee would be called together and active work would be commenced.

Mr. Henderschott, Chairman of the Membership Committee, reported that this Committee was gradually extending its activities and that more extensive work would be carried on until the convening of the second annual convention. Considerable

discussion followed relative to the policy of our Association in soliciting membership. It seemed to be the general opinion of the Executive Committee that our Association was proceeding along right lines, and that present methods and plans should be continued.

After discussion, the Executive Committee decided that invitations should be issued without limit to those desiring to attend the second annual convention, held in Philadelphia, as guests of the Association; that such invitations be issued through the Secretary's office and that cards of members who extend request that such invitations be issued, be enclosed with the invitation.

Upon motion the Committee then adjourned until 2.30 P. M., May 18th, to be reconvened at the Board Room, The New York Edison Company, Irving Place and 15th Street, New York City.

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### **INDUSTRIAL ADVANCE IN GERMANY**

Writing in "Business Education," Dr. E. E. Pratt says:

"The tremendous strides forward of German commerce and industry have been the wonder of the world during the last half century. She has gone into the world's markets and built up a great foreign commerce. Her industries are tremendous in size, and include the production of practically every manufactured article."

Who of us have not read the oft-familiar label, "made in Germany"?

The movement, however, has not been confined entirely to the German Empire. Edward Cadbury, of Cadbury Brothers, Ltd., England, has instituted and put into effect one of the most effective systems for industrial education and other employee relations of the present era. Sir William Lever has also reflected great credit upon his native land by the work which he has done in behalf of the employees of the great Sunlight Soap industry.

But England has not approached industrial education and other employee relations with that systematic thoroughness which has characterized the movement in Germany. In the United States much also has been done, but in a haphazard, disconnected way. Recently, however, the desire for better industrial education has crystallized into definite movements and the future is promising.



## **EMPLOYEE VALUE VS. PROPERTY VALUE**

*(Wall Street Journal)*

While financial houses, in passing upon public utility securities as investments, place much stress upon the replacement value of the property used by the company issuing the security, they do not often take into consideration the efficiency of that department of the corporation devoted to the securing of new business.

Managers of public utility corporations are now paying more and more attention to this department of their business, as upon it they must depend for their showing in regard to earnings upon their securities. It is probable that the electric light and power companies operating in the central West have paid more attention to this end of the business than have those in the East, but the latter are now beginning to realize its importance and are bringing up their new business departments to a more efficient standing. It is quite a compliment to the western operators that a heavy draft is being made upon their forces for experienced men to build up eastern commercial departments.

Samuel Insull, President of the Commonwealth Edison Company in Chicago, who has made the word's record in the building up of business for an electric company, believes that investors in public utility securities should pay more attention to the efficiency of the commercial department of an electric company than to any other one factor, as it is to the work of this department that the investor must look for the interest on his bonds or the dividends on his stocks.

In speaking recently in regard to this factor in the judging of investments, Mr. Insull said: "To my mind, the item of paramount importance is not the replacement value of the central station, it is not the replacement value of the electric power distribution system; the matter to my mind, as an operating man, paramount in importance is, that the selling organization of the companies in which you hold securities should be of the highest possible order. So, when dealing with the securities of public service companies, one should see to it that their engineering methods are of the most enlightened nature, so far as the selling of their product is concerned."

In speaking of construction engineering and of selling engineering in connection with public utility companies, Mr. Insull also said that if he had to choose between first-class construction

engineering and first-class selling engineering, as the possibility of mistake is so much greater in the selling side of the business than in the construction side, he would choose first-class selling engineering, as it would give him more money on the dollars invested with which to make up for the mistakes made by the constructing engineer.

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### **A SCHOOL FOR PAINTERS**

A recent issue of the "Dutch Boy Painter," published by The National Lead Company, describes a novel school of painting which has been instituted by the New Haven School Board, where it is proposed not only to teach painting, but actually to make painters.

This school is a part of the New Haven public-school system. It is supported by the city and is under the supervision of the Board of Education, just as the other schools are. It is unique as being the first school in America to teach painting and decorating as a part of the public-school course. This is a long forward step toward making American education practical. The highest commendation is due to the board for supporting the movement and to the Connecticut master painters for their enthusiastic encouragement of it. Tuition is free to all students residing in the New Haven city school district.

The school is known as the Boardman Apprentice Shops and the course includes tool-making, die-making, wood-working, painting and decorating, electrical work, printing, cooking, dressmaking, general home-making. The shops are in charge of an efficient superintendent, a man of national reputation, Mr. Frank L. Glynn.

The course in painting and decorating takes two years of fifty weeks each, five and a half days per week, eight hours per day. Seventy-five per cent. of the time is actual shop practice in the mixing and applying of paint, and the remaining time is given to drawing, designing, applied mathematics and the theory of paint mixing. Stereopticon displays and lectures by outside talent are given at every opportunity.

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### **EVEN FIFTY CLASS "A" MEMBERS**

The Simonds Manufacturing Company have taken Class A membership in our Association and this brings the total Class A membership to fifty. Mr. Edward B. Saunders, Efficiency Director of that corporation, will be the voting representative.

### **A NATIONAL EFFICIENCY EXPOSITION**

The First National Efficiency Exposition held in the United States will be opened on April 4th and continue until the 11th at the Grand Central Palace, New York City. Governor Glynn will make the inaugural address that will formally open the doors of the Exposition.

The motive of the exposition is explained by Walter H. Tallis, one of the moving spirits of the enterprise. Mr. Tallis said:

"It is becoming apparent, day by day, that the National Efficiency Exposition is not creating the demand for this congress of efficiency aids so much as it is endeavoring to supply a somewhat formless demand. The age of industrial and governmental extravagance is passing away before our very eyes. The new trend is unmistakable. Its goal is efficiency. It has really become the new gospel of the men of the world who are 'up and doing,' but its good news is not for the Arabs of modern progress. We are on the threshold of a new and living age. The Stone Age—the Iron Age—the Bronze Age and even the Steel Age, for that matter, are mute and lifeless compared with this—The Efficient Age.

"Every executive of a large corporation—every manufacturer—every merchant—every manager—realizes that if he is to 'stay in the swim' of rapidly shifting industrial conditions, he must at least have a speaking acquaintance with everything that concerns the promotion of economical methods. The day of the soapbox order of equipment and corner grocery methods are past. This much is certain, and to co-ordinate, to give systematic expression, to everything that makes for time or labor saving, is the aim and ambition of the National Efficiency Exposition and Conference. It was bound to come. Ralph Waldo Emerson, you remember, said that the highest honor we could pay to Truth was to put it to some use. The National Efficiency Exposition will show Truth in overalls with sleeves rolled up."

"How Efficiency May Be Attained"—"What Is Efficiency," and kindred questions will be dealt with in the conferences which will concern themselves largely with the discussion of papers having a direct bearing on the exhibits on display in the exposition. It is needless to say that many prominent industrial engineers will attend these conferences. In addition to this, invitations are being extended to municipal authorities, chambers of commerce, merchants' associations, scientific and labor organizations within a thousand mile radius of New York.

### NEW MEMBERS

The following new members have been received:

#### *Class A*

The H. M. Rowe Company, Baltimore, Md. . . . Mr. H. M. Rowe.  
The Rike-Kumler Company, Dayton, Ohio. . . Miss L. Meyncke.  
Simmonds Manufacturing Company, Fitchburg, Mass.,  
Mr. Edward B. Saunders.

#### *Class B*

Southern Bell Telephone & Telegraph Co., Atlanta, Georgia,  
Mr. Kendall Weisiger.  
Burroughs Adding Machine Company, Detroit, Michigan,  
Mr. J. C. Walker.

#### *Class C*

Roosevelt & Thompson, New York, N. Y.,  
Mr. James A. Roosevelt.  
Sidney Blumenthal & Company, Shelton, Connecticut,  
Mr. P. L. Gerety.  
Alexander Hamilton Institute, New York, N. Y.,  
Mr. J. Wm. Schulze.  
*Dry Goods Economist*, New York, N. Y. . . . Mr. G. Pryor Irwin  
Meese & Gottfried Company, San Francisco, Cal.. Constant Meese.

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### MENTAL DEFECTIVES CANNOT BE MADE NORMAL

In the New York Sunday *Herald* of March 22d, Mrs. Mary C. Dunphy, who, for forty-five years, has been teaching defective children, declares, in an interview, that there is no hope for children who are born mentally defective. Mrs. Dunphy says:

"Those born mentally deficient cannot be made into useful citizens.

"Brains cannot be given to those to whom the Creator has denied them.

"Segregation the moment they are discovered to be defectives is the only remedy.

"The higher the class of defectives the more dangerous.

"They never recover. To take them from restraint when they show improvement is only to menace the future of the community and the race.

"In forty-five years' experience I have never known one instance where a mentally defective person became normal."

# REASONS FOR THE SHORTAGE OF SKILLED MECHANICS AND HOW MANUFACTURERS CAN OVERCOME THE DEFICIENCY

By A. F. BARDWELL,

of the Yale & Towne Manufacturing Company, Stamford, Connecticut

[A. F. Bardwell was born at Whately, Mass., but was brought up in Springfield, Mass. He left school at an early age to learn the tool and machine trade, but finding the necessity for more education, studied nights for eleven years under private instruction. He has held positions as draftsman, designer, foreman, general master mechanic, superintendent, consulting engineer, and at present is Director of Apprenticeship Courses at The Yale & Towne Manufacturing Company. Starting in the employ of the latter company in 1887 upon power and plant work, he left in 1896 to become superintendent of the Automobile Department of the Pope Manufacturing Company, in which the first commercial automobiles manufactured in the United States were made under his supervision. In 1898 he was sent to Paris by the Pope Company, but was obliged to return on account of health. In 1902 he returned to The Yale & Towne Manufacturing Company, and in 1908 organized the present apprenticeship systems.]

## *Decline of Old Apprenticeship*

The industrial revolution of the latter part of the nineteenth century, resulting in the introduction of labor-saving machinery and the subdivision of labor, was the beginning of the decline of the old apprenticeship system.

## *What Became of Old Apprentices*

The effects were not felt for a few years, but as modern machinery developed the necessity of securing skilled mechanics became more and more difficult. During the decline of apprenticeship, the skilled mechanics have advanced and taken responsible positions, leaving a still greater deficiency even with the increased demand for same, all of which was a serious misfortune, as the instruction of automatic machinery and auxiliary tools demanded even a higher grade of mechanics.

## *What Was Necessary to Learn?*

Then came specializing and subdivision of labor, with the result that the apprentice learned only a small branch of the business, and in order to complete his trade he was obliged to go from shop to shop in order to learn the various branches, during which time he was not valuable to any of his employers and became a tramping journeyman.

\* This paper was read at the first annual convention of The National Association of Corporation Schools held at Dayton, Ohio, September 16-19 1913 and will appear in the proceedings of that convention.



*Manufacturers Began To Appreciate Shortcoming*

Some of the manufacturers, appreciating this condition, became convinced the average foreman had not the time, patience or liking for inexperienced young men, and accordingly equipped rooms for the training of apprentices.

*Leading Positions Require Higher Education*

Realizing also that many of their employees holding higher positions were originally apprentices, they began to educate the head as well as the hands by having evening schools, and while results were thus obtained, schools were conducted during working hours which showed a much greater efficiency.

*Proper Young Men to Educate*

Each locality and business has a different proposition, and should be handled accordingly, but there are a few things that are common to all.

The first and foremost is to get the proper young men to educate. We are all born of the same ancestors or under the same star, but it is believed everyone has natural ability in some line, and to find the young men with natural ability in your line of business is the first and important problem. What is feasible in one business is not in another; conditions vary in each case, the size and character of the business changing conditions. The broadness of the policy of the company and the kind of young men selected are what make it successful.

*Throwing Away Old For New*

We are living in an age of extremes, which can best be illustrated by women's bonnets, and while these extremes often produce results, it is not always best to give up the old altogether for the new. So it is with the apprenticeship system, and while the conditions have materially changed, and now the demands come that vocational studies shall be introduced to meet modern conditions.

*Co-ordination of System*

The Old Apprenticeship System did not comprehend this idea, nor conversely do the advocates of industrial education

fully appreciate the advantages to be gained. What is needed is some co-ordination that shall secure nearly all that can be gained from the Apprenticeship System and much that can be gained from modern schools and industrial education generally, for it is generally conceded that the mechanics desired cannot be obtained from our practice of the past few years. It is also recognized that the Apprenticeship System, as conducted formally, possesses many features that are unjust and uneconomic.

#### *High-Grade Mechanics Now Required*

The modern specialization of processes calls for the development of complicated machines and tools, the construction, supervision and the maintenance of which for larger and accurate production demand a high grade of skilled and industrial intelligence, knowledge of materials, cost, organization business and a conscience which recognizes obligations. Skilled mechanics with these qualifications should be able to fill higher positions, such as foremen (a factor in modern manufacturing which is becoming of greater importance every day).

#### *Public Mechanical Intelligence*

Mechanical intelligence has advanced in all classes of people. A few years ago, when the bicycle first became popular, the public at large knew little or nothing of the mechanical points, but shortly even the ladies could converse intelligently regarding its finer points. Then came the automobile, and again the ladies have proved they can master and care for same.

#### *Broad Character of Education Desired*

We are living in a strenuous age, and from present indications it is not liable to be less so, consequently the apprentice's education should be broad in character to fit him for higher positions at as early a date as possible, and to accomplish this he should have a theoretical education as well as practical work.

#### *Conditions of Young Men At Commencement of Apprenticeship*

At the age a young man commences his apprenticeship he is usually at the top of "Fool's Hill" and imagines he knows more than he really does. He is not at fault for this, as nature so

provided all human beings with this apparent weakness. Because he is full of life and fun, do not mistake this for inattention, as the live ones are always alive and the dead ones are always dead.

#### *The Education of Head and Hands at Same Time*

The idea of educating the head and the hands at the same time is believed to give the best results. Theory and practice go together, notwithstanding we so often hear they do not. If we theorize incorrectly the practice will not agree, showing the trouble was in the head. Hence, the reason for educating and balancing the head.

#### *Disposition*

When a young man starts his apprenticeship, his disposition is generally as crude as his other abilities. This should not be overlooked in his education. The same rule should not be applied, however, for the reason there are no two faces alike, neither are there any two dispositions alike.

There are similarities in looks, also similarities in dispositions.

At first the young man is full of enthusiasm, and to obtain the desired results this should not be allowed to falter, at the same time you will find this is not a boy's job. However, we are all only grown-up children, and it will be found that by instigating something new when the occasion demands the necessary enthusiasm can be maintained.

#### *They Make Something*

In educating the hands of a young man, impress upon him that quality comes first, not only at the start but for all times, as the old saying "a long job is soon forgotten, but a poor one never." As soon as he has mastered quality his attention should then be directed toward quantity. While he should be advanced in a systematic manner, do not attempt to keep him upon a lathe, planer, or any other types of machine for stated periods, because in so doing he makes nothing, but give him something simple to make, place a coach over him and let him make the article from start to finish. You have inspired him that he is doing something, and he also ascertains early that one operation depends upon another, and if the job does not come out acceptable he cannot blame others, as he did all the work himself. Give him a variety of work, for if you do not he will

become "track sour" (as they say of trotting horses) and lose enthusiasm, and this is one of the essential requirements to produce the best results.

### *Spoiling Young Men By Over-Educating Head*

As to the education of the head, this should be done in conjunction with the education of the hands, but do not attempt to over-education his head, for if you do his hands will cease to have that sensitive touch which is necessary to a first-class mechanic. As the basis of all mechanics is mathematics, review his arithmetic, give him enough algebra to enable him to handle simple equations, plane geometry, elementary mechanics, and while he is assimilating the above, sandwich in mechanical drawing, starting with geometrical figures.

### *Yale & Towne Old Apprenticeship Systems*

The Yale & Towne Manufacturing Company, after trying several systems of Apprenticeship for a period of forty years, including evening schools, established in the early part of 1908 a Modern Apprenticeship System which was largely patterned from Lynn School of the General Electric Company, but as the character of their business was entirely different from that of the General Electric Company, changes were made to fit the conditions. In order that you may understand something of the system now in force the following is a brief description:

### *Entrance Examinations*

The Apprenticeship at the Stamford, Conn., works is open to young men of sixteen years of age and upward, who are physically sound and able to pass the entrance examination, which consists chiefly of arithmetic, spelling and a few general questions as taught in the grammar schools. The answers of some of these questions are very amusing. For illustration: One young man's answer to the following question: "Should you borrow \$100 from John Brown, write a note in which he could collect at any time." His answer was as follows:

"Dear Friend: The money which you were kind enough to *lone* me, you can collect at any time. I am very grateful to you, and some day I may be able to help you in the same *manor* which I will gladly so, I remain,

Yours everlastingly."

### *Weeding Out of Undesirables*

These examinations bring out the deficiencies of the applicants, and the weeding out of the undesirable is thus accomplished.

### *Trial Period*

An accepted apprentice upon entering the Training Room (which is separated from the main tool rooms) is under able instructors, and during the first three months on probation. He is closely watched to ascertain if he has active mechanical ability. If it appears to be in some other line he is so informed and allowed to retire, but if he has given evidence that he has mechanical ability, he is allowed to continue for the balance of the four-year period.

### *Coaching*

The older apprentices are used to coach the younger apprentices upon work they have already mastered, consequently about thirty apprentices are handled by one instructor. By so doing, it compels the apprentice to pay the strictest attention when he is being instructed, as he appreciates that it is only a question of a short time before he must instruct some other apprentice. This not only creates attention, but at the same time indicates something of his natural ability as an executive.

### *Work of Beginners*

The young apprentice, at the first, is put on to work that has a commercial value—viz., tools that are to be used in the works—and informed the first tools completed must be acceptable to the inspector, and taught the value of the material upon which he is working. Also that quality comes first, and as soon as the quality is acceptable he must produce the quantity.

### *Record of Work*

A record is kept of each job, and as soon as completed is recorded upon a card, consequently the work of one apprentice can be compared with that of others. Each apprentice is taught individually and advanced in his work according to his ability.



### *Length of Time in Training Room*

For three years Apprentices work in the Training Room, but the fourth year they are placed in the different departments of the works, where they must rub elbows with the journeymen and acquire greater skill by specializing more particular along lines to which they are best suited.

### *Educational Classes*

The apprentices are required to attend the educational classes, the object of which is to advance the young men in the knowledge of the science required for the intelligent understanding of machines and machine processes; to make him acquainted with the problems and calculations which he will use later on; to train him in the correct reading of mechanical drawings and sketching and designing of auxiliary tools needed in modern manufacturing.

### *School Sessions*

School sessions are held during working hours, and apprentices are paid the same rate of wages that they would receive if they were working on the machine or bench at that time. All instructions are of a practical character and deal with practical shop problems.

### *Subjects Taught*

The courses of study comprise arithmetic, elementary algebra, plane geometry, trigonometry, elements of mechanics, mechanism, mechanical drawing and freehand drawing. In addition thereto, the officers, managers, superintendents and foremen of the company give practical talks on subjects relative to the business. The classes are given in separate class rooms, and the time consumed for such classes is one and one quarter hours per day, four days per week and forty weeks per year. Advancement from one grade to another is contingent upon the passing of an examination at the end of each term.

### *Apprenticeship Agreement*

The Apprenticeship Agreement provides for a service of four years, and the wages are advanced each six months. All lost time must be made up each six months before the next rate is started.

### *Certificate and Bonus*

A certificate of Apprenticeship is awarded to each graduated apprentice, together with a cash bonus of one hundred dollars (\$100), if in the opinion of the company the apprentice has shown proper development.

### *Graduated Apprentices*

All graduated apprentices are encouraged to remain in the employment of the company, and are given substantial increases in wages when they enter upon their career as journeymen.

### *Exhibition*

At the close of each school year, an exhibition of drawing and tools made by the apprentices is held. This exhibition is thrown open to all employees and the public at large, and give the parents and friends an opportunity to examine the work of the apprentices.

The apprentices have a Social Club, in which they hold meetings, dances, and banquets. They also have a baseball club.

### *Is Apprenticeship Profitable?*

The question is often asked "Is apprenticeship profitable?" Under the old system many large and successful concerns, which have had apprenticeship systems in operation for a period of years, are unanimous in their statements that apprenticeship systems do pay. Apprentices pay as producers during their term of service; as competent skilled journeymen after graduation, as intelligent foremen and as executives later on. Those who leave at the expiration of their apprenticeship become staunch supporters of the "Mother Shop," always ready to say a good word for it; as loyal as college graduates to their alma mater.

### *Which Derives Benefit?*

As to which derives the most benefit from apprenticeship, the manufacturer or the apprentice, it can be answered both. The manufacturer, having the advantage of the full term of service, upon work that should be of commercial value, and for a certain part of the time he should profit as much as on the average journeyman's work.

At the same time the apprentice has become familiar with the manufacturer's way and product, and while it is recognized the number of executives is small compared with the whole number of graduated apprentices, the manufacturers can avail themselves of this proportion and the remainder should be first-class skilled mechanics.

As for the apprentice, he started with a general school education, together with his native ability, which can best be illustrated as a rough stone, and through diligent work upon both his part and that of the manufacturer, the rough corners are removed and he is gradually hewed into shape; not only acquiring skill with his hands, but also with mind, and at the completion of his apprenticeship, his skill is like the yellow or white diamond, he can carry it away should he decide to leave the manufacturer.

Do American boys want to learn a trade? To this serious question, and upon the answer by the coming generation, depends our future as a manufacturing country. They do not know what a trade consists of, the shop doors are not open to them now as they were formerly. They cannot stand at the open door and see a workman "make something," for the reason that nowadays it is seldom that an individual wholly makes anything, and only a small fraction of the boys have fathers who are possessed of a trade.

There are three essentials to a young man's learning a trade: First, the young man's desire; second, the parents' consent; third, the opportunity.

Experience has shown that half of the boys can have their parents' consent, but how about the boy's desire? If some of the boys in the neighborhood go to work, then it becomes second nature for all to want to follow. What these boys need is the last of the three conditions, an opportunity. Not an opportunity to learn some one trade predetermined by a parent, but a chance to find out in which trade he has natural ability, and if they cannot master the particular trade in which they were started, they should be politely but firmly told so.

Apprenticeship offers to young men of limited means, who would otherwise be forced into that large and growing class of unskilled labor, an opportunity to learn a trade. This again is but a stepping stone to higher positions, as many of the superintendents, managers, and presidents of manufacturing companies were formerly apprentices. Every apprentice is buoyed up, spurred on by this hope; he must have faith in the company in which he

serves his apprenticeship. Manufacturers that maintain apprentices must have an unlimited amount of charity.

While it is recognized that men have not an equal amount of ability, a noted writer states in reference to college graduates, "Not over one in ten are successful," and while it is not reasonable to expect 100 per cent, there should, with a modern apprenticeship system, graduate a large percentage of high-grade journeymen, and to this end the manufacturer should be liberal with them after graduation and treat each case purely upon its merits.

### **ASSOCIATION IN HEALTHY CONDITION**

Extract from the Secretary's report to the Executive Committee, April 2, 1914.

Usually the second year of an organization is its most trying period perhaps because the first blush of enthusiasm has subsided, and many are watching to see whether or not it will continue a second year. In view of the splendid condition of our Association, and the fact that nearly all of our members have renewed promptly their 1914 membership and paid their dues, and the further fact that our Association is showing a steady although conservative growth, your Secretary feels that this Association has reason for the belief that it is rapidly approaching recognition as an institution, if such recognition has not already been attained.

### **STEEL COMPANY'S PENSIONS**

The third annual report of the United States Steel Corporation pension fund shows that \$1,063,063.43 has been disbursed in pensions since January 1, 1911. This corporation is spending something like \$5,000,000 a year in what is called "welfare work." Railroad companies, manufacturing concerns and mercantile establishments are more and more looking after the physical safety, health and recreation of their employees. The positions of safety engineer, efficiency expert and educational director are all becoming generally understood.

### **PSYCHOLOGICAL TESTS OF EMPLOYMENT PLANS**

Letters have been forwarded to all Class A members and nine Class C members (Class C members all large corporations), asking them to forward such data as was requested to Walter Dill Scott in charge of the psychological laboratory at Northwestern University, and the plan which was approved by the Executive Committee at its meeting has now become operative, and a report will be made when the study and experiments have been completed by Dr. Scott.

### EFFICIENT INDUSTRIAL EDUCATION

The building of Gary, Indiana, says the *Literary Digest*, was a nine-days' wonder. At the behest of a group of steel magnates a city grew up like magic on the open prairie—a city with factories, houses, public buildings, well-paved streets, water, electricity, and all the rest of it, literally built to order. The "nine days" have passed, and the wonder of the town's becoming has well-nigh been forgotten. The people who are now talking about Gary are the educators—discussing the interesting way in which this industrial city is teaching the children of the workers to be workers themselves—and good workers, not merely boys and girls who play at working. How this up-to-date system of practical industrial education is the realization of one man's ideals is told in an article reprinted from *The Hardware Age* by *American Industries* (February). We read:

"The principal idea of this man, William A. Wirt, superintendent of schools, was to incorporate thoroughly in school work the plan of industrial education. Not the form of industrial work which is applied in many of our school systems, but work which called for actual, practical results, for the production of things which were of real value—work which demanded that the pupils learn not only the manual efforts which were required to produce a certain article, but which included the cost of that article, the value of time, of material, of tools. The result is that the finished pupil leaves that school having learned to do a thing in the best way, with the least expenditure of time or money, prepared, if he does care to follow any of the trades which he has studied, to be of greatest service to an employer.

"When a pupil has reached the seventh grade in those schools he is offered in addition to the academic courses the opportunity to learn drafting, printing, sheet-metal work, foundry and forge work, plumbing, heating, electrical work, cabinet-making, pattern-making, machine-shop work, or painting.

"All of these departments, in addition to many others, are housed in a single building. In fact, everything from the kindergarten to the highest classes is included in this same plant. They call their schools 'plants' in Gary, yet the Emerson school, the first of these advance-method school buildings, requires but little more space than the average high school in a city of similar size.

"One feature which immediately impresses itself on the visitor is the absence of force. Human nature in child or man rebels



at being forced to do anything. The courses in Gary schools are purely elective. A program of studies is mapped out, but the pupils take those which they prefer. Thus they are led instead of being driven, and with the result that they love their school, its work, and, putting forth the best that is in them, accomplish the greatest results. None of the industrial courses is compulsory, yet all the classes are filled.

"For instance, a boy wishes to study drafting. He first obtains permission from his parents, bringing them into close touch with the school work. He enters that department under the tutelage of an experienced man. He takes up the preliminary drawing, then goes into further details. He is given plans to draw, which means that he must solve the problems of floor loads from his text-books. He must study the theoretical to do the practical. As he progresses, he requires addition instruments. These he supplies for himself. Should he not make proper head-way in this line, he is allowed to drop it and take up another."

The work in the school is handled like that in a large manufacturing plant, as is shown by the following instance, given by the author:

"A number of new desks are required. The drafting-room is called upon for plans and details; these in turn are passed to the various departments with orders for a certain number of the article which they make in that particular department. These departments make requisition on the stock rooms for the raw material required. Pupils in charge of these departments deliver the material and charge it. The completed product is charged to the school or department to which it is delivered. Costs of each operation are carefully computed, using the union scale as to wages. This places a fixed value on the work and the pupil is interested in producing greatest results at the least cost.

"In addition the work done is such as to save the schools the cost of outside labor. They are working now on plans in their drafting-rooms for schools which are to be built; the printing-shop does the bulletin, announcement, and some text-book work. All through each department the same procedure is followed. In short, the industrial departments in Gary schools are self-sustaining to the point of paying for all material used and for the cost of the instructors. . . .

"But it is not all work at the Gary schools. Prominent in the planning of grounds and buildings was the allowance for playgrounds, which assume the proportions of parks. These

grounds are at the disposal of the pupils at all times. They play during school hours and out. Everywhere is the spirit of freedom, the spirit of honor, of clean manhood, influences which tend to develop the initiative. It is in this environment that the children of Gary are being raised. The superintendent has made the schools and grounds the most popular place in the city. Thus the playgrounds or the shops get the time which under other circumstances would be devoted to the streets and alleys."

Nor are these schools for the young alone:

"Another fact of interest is the work done by adults at night. The man who is forced to earn a living during the day, who is in a machine-shop, for instance, wishes to learn some operation which will not be given him in his daily work until he is capable. He goes to school at night. He takes up lathe work, comes when he wishes, stays as long as he will. He masters the machine, goes to his employer and demonstrates his ability, is in line for a better position. It is in this and similar ways that the Gary schools have wound themselves inseparably into the lives of both parents and children.

"From 5.30 until past 6 in the afternoon one may see an interesting sight on the main street of Gary. From the lake comes marching, filling the wide sidewalks on either side of the street, the army of steel-workers. These are the fathers of the children which Gary's schools are working for, are teaching to become finished mechanics rather than laborers, have placed on a higher plane—uplifted."

### **A SCHOOL FOR POLICEMEN**

Sixty new policemen have just been graduated from the New York police school of recruits. Each has been examined after three months of constant instruction and marked "O. K." This "O. K." means that he is a lawyer, a diplomatist, a peacemaker, a Sherlock Holmes, a sure shot, an athlete, a Chesterfield, a good samaritan and a city directory.

After the new policeman is appointed from the Municipal Civil Service list he passes a physical examination. After that he begins a ninety-day period of tuition, in which no schoolboy has to tackle lessons more systematically.

He has his home work to do at night, following his "teacher's" mental drilling during the day. He is taught many things that public schools do not teach, including deportment and patience. The curriculum embraces everything that will tend to make him vigilant, observant, thorough and active.

He attends a lecture on court procedure by the Chief Magistrate of the city; four lectures by a police surgeon on first aid to the injured; one lecture on the importance of finger print impressions by the inspector in charge of the detective division, and three sessions of moot or practice court, lasting three hours each.

In addition to the classification of crimes, the new policeman has more than a score of other subjects to study. These include deportment, patrol, observation, traffic, fires and accidents, ordinances, disorderly conduct and disorderly persons, public morals, assault and dangerous weapons, court procedure, election law, public nuisances, malicious mischief, Sabbath law and reports.

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### **MORE USE FOR HIGH SCHOOLS**

A movement to make the high schools of the city centres of social and civic activity for the improvement of conditions in the various districts has been started by the Gramercy Neighborhood Association with a public meeting in the Washington Irving High School of New York City.

Police Commissioner McKay, offering the co-operation of the Police Department with citizens for the improvement of social and civic conditions, said he had already co-operated with the authorities of Washington Irving High School in providing protection for the young women pupils there from outside annoyance.